

WHAT IS CLAIMED IS:

1. A managing method executed by a management computer connected to a computer and storage apparatus through a network, and comprising:

a step for allocating storage area of predetermined capacity from the storage area of said storage apparatus to said computer;

a step for obtaining the capacity utilization of said each storage area allocated to said computer;

a step for calculating estimated capacity utilization estimated from the capacity utilization of said each storage area; and

a step for collecting the storage area corresponding to the difference between the capacity of said allocated storage area and said estimated capacity utilization when the capacity of said allocated storage area is greater than said estimated capacity utilization.

2. The managing method according to claim 1, wherein said collecting step includes:

a step for allocating a second storage area of capacity equal to or greater than said estimated using capacity and smaller than the capacity of said allocated first storage area to said computer; and

a step for releasing the allocation of said first storage area to the computer after the copy of data of said first storage

area to said second storage area is terminated.

3. The managing method according to claim 2, wherein said collecting step further has:

a step for giving commands to said storage apparatus so as to execute the copy of the data of said first storage area to said second storage area.

4. The managing method according to claim 3, wherein said collecting step further has:

a step for reducing the size of a file system made in the first storage area before the data copy is executed by the storage apparatus.

5. The managing method according to claim 2, wherein said collecting step further has:

a step for giving commands to said computer so as to execute the copy of the data of said first storage area to said second storage area.

6. The managing method according to claim 2, wherein said managing method further has:

a step for executing the copy of the data of said first storage area to said second storage area.

7. The managing method according to claim 1, wherein said collecting step further has:

a step for judging whether the collection is possible or not on the basis of a flag every said allocated storage area.

8. The managing method according to claim 1, wherein

the managing method further has a step for obtaining a write I/O number of said each storage area allocated to said computer, and

said collecting step includes:

a step for assigning said storage area having 0 in said write I/O number for archive, and allocating a second storage area of low cost and capacity equal to or greater than said estimated capacity utilization and smaller than the capacity of said allocated first storage area to said computer; and

a step for releasing the allocation of said first storage area to the computer after the copy of the data of said first storage area to said second storage area is terminated.

9. The managing method according to claim 1, wherein said management computer is connected to plural storage apparatus, and

a memory for holding a device management table for managing the allocating states of the storage area of said plural storage apparatus is arranged,

said step for allocating said storage area to said computer comprises allocating said storage area to said computer on the basis of said device management table.

10. The managing method according to claim 1, wherein said step for calculating said estimated capacity utilization comprises calculating the estimated capacity utilization on the basis of the kind of an application for

utilizing said each storage area, access characteristics or the importance degree of stored data in addition to the capacity utilization of said each storage area.

11. The managing method according to claim 1, wherein on the basis of the capacity of said allocated storage area and said estimated capacity utilization, a proper state of the capacity of said allocated storage area is displayed. .

12. A managing program executed by a management computer connected to a computer and a memory unit through a network, and executing:

a procedure for allocating a storage area of predetermined capacity from the storage area of said storage apparatus to said computer;

a procedure for obtaining the capacity utilization of said each storage area allocated to said computer;

a procedure for calculating estimated capacity utilization estimated from the capacity utilization of said each storage area; and

a procedure for collecting the storage area corresponding to the difference between the capacity of said allocated storage area and said estimated capacity utilization when the capacity of said allocated storage area is greater than said estimated capacity utilization.

13. A memory medium readable by a management computer connected to a computer and a storage apparatus through a network

and storing a managing program executed by the management computer, wherein the memory medium stores the managing program executing:

a procedure for allocating a storage area of predetermined capacity from the storage area of said storage apparatus to said computer;

a procedure for obtaining the capacity utilization of said each storage area allocated to said computer;

a procedure for calculating estimated capacity utilization estimated from the capacity utilization of said each storage area; and

a procedure for collecting the storage area corresponding to the difference between the capacity of said allocated storage area and said estimated capacity utilization when the capacity of said allocated storage area is greater than said estimated capacity utilization.